

ABSTRACT

A method of analyzing machine vision images to identify low contrast features such as scratches or cracks on the polished ends of optical fibers. A bank of oriented filters having incremental angles of orientation are tuned to respond to the frequency characteristics of oriented scratches or cracks having an approximate width. The filters are applied to an image to generate a filter response image for each filter orientation. The set of filter response images are combined to form a single data set indicating a magnitude and angle for each pixel in the original image. Elements of the combined data set having corresponding angles and magnitudes are grouped to form contour components that can be optionally input to higher order processes.

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